

FIELD TRIPS OF THE CLUB

TRIP OF SUNDAY, JULY 19

The trip of July 19 afforded the 34 participants an opportunity to observe the chief features of the vegetation of Sandy Hook. This region, within such easy reach of New York City, presents a sample of largely unaltered "beach" vegetation, with the unusual spectacle of a maple-holly forest. The party first made observations on the vegetation of the Navesink Highlands, finding oaks and hickories to be the dominant trees, with a number of interesting introduced trees and shrubs.

After devoting an hour to lunch, the party gathered at the entrance to Sandy Hook, where they were admitted through the courtesy of the Commanding officer of Fort Hancock. By calling into use all available cars, the party was carried several miles up the Hook to headquarters, where an officer was provided to conduct them through the reservation. This arrangement proved to have double value, for it not only enabled the members to explore certain forbidden regions, but also made possible a closeup view of such non-botanical exhibits as disappearing guns, ammunition stacks, and other features of the coast defenses. It was pointed out that the lighthouse, now situated nearly a mile south-east of the tip of the Hook, was just at the tip when built over a hundred years ago.

Among the plant communities visited by the party was an established dune of the low type which is typical of the Jersey coast. Here were seen the red cedar, black cherry, beach plum, bayberry, and several species of *Rhus*, which dominate such areas, together with *Hudsonia tomentosa*, *Lechea maritima* and *Opuntia vulgaris*. When one enterprising botanist announced the discovery of a couple of belated flowers of this cactus, a scramble ensued, for all wished to see the large yellow double flowers of our eastern prickly-pear. In spite of the leader's warning, a few investigators got first-hand knowledge of the tiny glochids which abound on the joints of the *opuntia*—another form of "coast defenses."

After glancing at the little group of *Pinus rigida* which constitute the only pines on the peninsula, the party examined the remarkable community in which red maple and holly are domi-

nant. The large size of the latter (a foot or more in diameter), the abundant mantle of climbers such as *Psedera*, *Menispermum*, *Vitis* and *Rhus Toxicodendron*, the luxuriance of the undergrowth, including such a delicate plant as *Geranium Robertianum*, give one a rather false idea of the seemingly mesophytic nature of the region.¹ The difference between this forest and the oak-hickory combination seen in the adjacent Navesink Highlands was striking.

A third and very different plant community was the last one visited, namely, the salt-marsh on the west side of the Hook. *Spartina glabra* was seen to be the outlier, while *Iva oraria* formed a close second. Two species of *Salicornia* occurred in depressions, accompanied by *Suaeda linearis* and *Spergularia marina*. On higher ground were found the usual beach plants among which *Salsola kali* and *Euphorbia polygonifolia* attracted most attention. After some search, specimens of marsh rosemary (*Limonium*) were located, thus completing the list of exhibits.

The day was unusually favorable for field work, also for salt-water bathing, which concluded the program for some members of the party.

M. A. CHRYSLER

TRIP OF JULY 25

Cedarhurst, Long, Island, July 25. The wooded area owned by the Long Island Water Corporation, west of Cedarhurst and Hewlett, and south of Gibson and Valley Stream, at the base of the Rockaway Peninsula, which was visited by the club on Saturday afternoon, July 25, is a region lately discovered by the chairman of the field committee, which merits more attention by botanists. It appears to be a remnant of the older patches of low land forest on the south shore of Long Island, having been preserved because it is used for the water supply through driven wells, of neighboring communities. It is closed to general public use, but permission was kindly given to the club by the water company for scientific field study. The timber, though it was perhaps cut in early days, is excellent dense

¹ The probable origin of this community has been discussed in a recent paper by the leader, Bull. Tor. Bot. Club. Vol. 57, No. 3; March 1930.

second growth, if not original in some spots. It is only a few feet above high tide, and on the western border is a fresh meadow, gradually becoming salty toward the creek which enters the western end of Jamaica Bay. The moist conditions of the meadow and the sides of a still brook which meanders through it and out to the marsh encourage many herbaceous plants loving wet spots.

The largest colony of the narrow-leaved Chain Fern *Woodwardia areolata*, which the writer has ever seen occurs in the forest, being the commonest fern present. It is as thick as the Sensitive Fern is usually in such places. Just outside the woods grows the other Chain Fern, *Woodwardia virginica*, in abundance among the marsh grasses, with Royal Fern.

Two beautifully fruiting Slime Moulds, *Conatrichia typhoides* and *Didymium melanospermum* were common in the shaded woods. In the fresh meadow were large colonies of many flowered specimens of *Lilium superbum*. The Great Burnet, *Sanguisorba canadensis*, was found in large stands. *Polygala cruciata* was very common on the sandy meadow soil, partly hidden by grasses and sedges. The change from fresh water species, such as pickerel weed and water arum in the brook, to brackish and salt water species is interesting as one follows the marsh west toward the head of the bay.

This region promises to remain unaltered, because it is too low for real estate development and is protected because of its water supply uses. It is worth frequent visits at various seasons, for its plant associations are apparently unchanged since earlier days.

TRIP OF AUGUST 2

Doodletown Valley, Bear Mountain Park, Aug. 2. An interesting feature of an excursion of the club in the eastern part of the Bear Mountain Park was the discovery of another flourishing colony of the Prickly Pear Cactus, *Opuntia Opuntia*, on one of the granite knobs in the midst of the meadows back of Iona Island. The cactus colony scheduled to be seen on this walk, on the northern knob, was observed and the party decided to look over the southern knob and see if the species occurred there too. It was promptly found, on the pegmatite dike of which these knobs are mostly composed. *Utricularia vulgaris* was in plentiful bloom in the stagnant pools along the

road to Iona Island. The lower part of Doodletown Brook, climbing from the State Highway, proved interesting, with many mosses and liverworts. *Conocephallum* and *Pellia* were plentiful and a leathery brown plant which looked like a liverwort proved to be the lichen *Dermatocarpon miniatum aquaticum*. The Purple Loosestrife and the Rose Mallow were in gorgeous bloom in the marshes. The former shows every year more development at higher levels, climbing up the brooks above its original stands in the salt marshes.

(The writer found another colony of Prickly Pear Cactus, in dune sand, east of Sunken Meadow State Park, at Kings Park. L.I., August 8.)

RAYMOND H. TORREY

TRIP OF AUGUST 22-29

Fifteen, in addition to the leaders (Dr. Gundersen and myself), appeared for the week's exploration of the Catskills, and were duly installed in three farmhouses in the village of Maplecrest, in Windham Township. Demands of summer visitors have resulted in a replacement of the local and botanically more inspiring name of Big Hollow (still on the topographic map) by the elevated name, Maplecrest. The hollow is some ten miles in length, hemmed in on the south by Thomas Cole, Black Dome and Blackhead Mts. and on the east and north by Acra Point, Windham High Peak, and Elm Ridge. These mountains are in general 3000-4000 feet high, rising from the valley which is at 1700-2000 feet.

The excursion combined both scenic and botanical interests. The itinerary began on Monday with the ascent of Hunter Mt., altitude approximately 4000 feet, lying about eight miles south of Windham. In sugar maple groves at the base were found two species of *Botrychium*—*B. lanceolatum* var. *angustifolium* and *B. ramosum* always to be looked for and not at all uncommon in such places. The common members of this genus, *B. virginianum* and *B. ternatum*, were also found in this region. Proceeding upward *Viola rotundifolia* conspicuously occupies the ground for an interval of about 300 feet with occasional *V. canadensis*

and *V. renifoia*. The brooks are lined with silver birches (*B. lutea*), mountain maple (*Acer spicatum*) and moosewood (*A. pennsylvanicum*) and in the brook bed itself grows *Impatiens pallida*. At the uppermost limit of the *V. rotundifolia* belt where the rocky ledges of the mountain begin to be apparent, *Polystichum Braunii* is abundant along the pathway (elevation between 2500 and 3000 feet), the only locality at which this northern fern was noted during the week. The rocky declivities are draped with *Ribes lacustre* and *R. triste* var. *albinervium*, the latter species so far as I know, not recorded as far south in New York State. *Festuca nutans* is here a common grass. Passing beyond this point the woods take on the general aspect of the Canadian forest—a monotonous repetition of few species which occur in picturesque abundance, *Picea rubra*, *Abies balsamea*, *Betula papyrifera* var. *cordifolia*, with a ground covering of *Oxalis americana* (*O. acetosella* of American auths.), *Aster acuminatus*, *A. macrophyllus*, *Clintonia borealis*, *Streptopus roseus* and predominantly the broad-leaved mountain representative of the shield-fern, *Thelypteris spinulosa* var. *dilatata*. The wand-like inflorescences of *Solidago macrophylla* brighten up these forests where flowers are conspicuously lacking at this season of the year. An exposed area along a spring-fed brook at about 3000 feet gave an unusual display of *Rudbeckia laciniata* and *Chelone glabra*. Near the summit the spruce woods become thicker and the ground almost boggy and here *Trillium undulatum*, *Cornus canadensis* and *Coptis trifolia* make their appearance, also *Conioselinum chinense*. Exposed places at the summit are occupied by the hair-grass, *Deschampsia flexuosa* and by *Cinna latifolia*. The view from the steel fire-tower covers the Catskills to all points of the compass and to the north extends far beyond the mountains.

August 25, Tuesday. Various members spent the morning working on material collected the previous day or joined in a short exploration, interrupted by rain, of the pastures and lower wooded slopes of Windham Peak. These yielded the same *Botrychium* found at Hunter, a single specimen of *Microstylis unifolia*, *Carex Deweyana*, and in the crevices of an exposed ledge, *Woodsia ilvensis* and *Asplenium platyneuron*.

August 26, Wednesday. The day was occupied in a visit to Overlook Mt., which occupies the southeast angle of the Cat-

skills and looks out upon the Hudson Valley. Rain set in before the summit was reached. Miss Rusk, Miss Vilkomerson and I remained somewhat behind the rest of the party and never did reach the top. Judging from the plants encountered, the region adjacent to the abandoned sandstone quarries toward the summit has a well-marked acid soil. The most interesting plant along this trail is *Ilex monticola*, bushes up to seven feet in height, which I had never previously seen here. *Kalmia latifolia*, *Viburnum cassinoides*, *Gaultheria procumbens*, *Quercus velutina*, *Myrica asplenifolia*, *Epigaea repens*. *Vaccinium pennsylvanicum* and *V. canadense* were abundant. The evening was spent by various members in passing buckets of water at a neighborhood fire. A small part of the water reached its destination.

August 27, Thursday. So far we had enjoyed only one clear day and Thursday was no exception to the generally rainy weather. In a let-up Dr. Ryder and I, under the guidance of one of the boys on the farm, searched ineffectually for a "cranberry meadow" in which pitcher plants were said to grow. We cut twice through an alder swamp overgrown with grass and at noontime returned for more and better directions. In the afternoon Mr. Irish, with whom I was staying, offered to lead the way. This time a first-class bog was uncovered. Pitcher plants (*Sarracenia purpurea*) were there in abundance, but of more interest was an open space of about an acre thickly carpeted with *Carex pauciflora*. The small cranberry (*Vaccinium Oxycoccus*), and tufts of *Eriophorum spissum* Fernald¹ (*E. callitrix* of most auths.) and *Kalmia polifolia* were intermixed. At the margins of the bog, shaded by *Picea rubra* and *Abies balsamea* were a few clumps of *Carex paupercula*, another sedge rare so far to the southward. Although *Carex pauciflora*, *C. paupercula*, and *Eriophorum spissum* range southward to Pennsylvania on the Pocono Plateau, none of them have been definitely reported from the area within New York State covered by Taylor's "Flora of the Vicinity of New York," (1915) which includes the Catskills, nor has House² listed these species from within this area with the exception of *C. pauciflora* which is

¹ Rhodora xxvii, 208 (1925).

² Bull. N. Y. State Museum No. 254 (1924). It is here assumed that House's report of *Carex paupercula* in Dutchess County (p. 138) is based on the doubtful citation by Taylor (l.c. p. 204).

said to extend to Delaware County. *Linnaea borealis* var. *americana* and *Chiogenes hispidula* were abundant in hemlock and spruce thickets surrounding the bog.

An informal meeting at Dr. Gundersen's concluded the day's program. Here we were visited by a terrific thunder storm, the lightning flashes disclosing the peaks of the Catskills as in daylight.

August 28, Friday. A second visit to the bog for the benefit of those who had not previously seen it, was followed by the ascent of Blackhead Mt. from the north. This mountain is much steeper than Hunter or Overlook and the vegetation of the slope has a more northerly aspect. For example, *Trillium undulatum* occurs down almost to the base of the mountain; on the other hand *Polystichum Braunii* did not make an appearance. *Streptopus amplexifolius* in a deep ravine and *Amelanchier Bartramiana* on exposed rock were perhaps the most interesting species on the north slope of Blackhead Mt. *Linnaea borealis* var. *americana*, occurring in patches on the summit, seems to be comparatively rare in the Catskills.

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